

### REMARKS

Responsive to the outstanding Office Action, applicant has carefully studied the Examiner's rejections. Favorable reconsideration of the application in light of the amendments and arguments is respectfully requested.

The claims pending in the application are claims 1-20 and 27 and 28. In the response, claims 1 and 16 have been amended. It is respectfully submitted that no new matter has been introduced in these amendments.

### CLAIM OBJECTIONS

The Examiner objected to claims 1, 16-20 and 27. Specifically, the Examiner noted that claims 1 and 16 lacked proper antecedent basis. In response thereto, claims 1 and 16 have been amended so that the words "layer" and "coating" are used consistently in the claims. It is therefore believed that the objections have been overcome.

### REJECTIONS UNDER 35 USC §103

In the Office Action, the Examiner now rejects claims 1-20 and 27 and 28 under 35 USC §103, as being unpatentable over US 3,892,888 to Halaby et al in view of Robinson (US 2002/0135099) or vice versa.

The invention as defined in claim 1 provides a method for producing an architectural glazing comprising an iron oxide coating on a glass article by atmospheric pressure chemical vapor deposition in an on-line float glass process. The method comprises providing a heated glass substrate having a surface on which the coating is to be deposited and directing ferrocene and an oxidant toward and along the surface to be coated to form a gaseous precursor mixture. The gaseous precursor mixture is reacted at or near the surface of the glass substrate to form an iron oxide coating. The iron oxide is primarily in the form of  $\text{Fe}_2\text{O}_3$ . The claim indicates that an additional coating is deposited between iron oxide coating and the substrate.

The Halaby reference cited by the Examiner is addressed to a method of producing a magnetic recording or storage device. Halaby teaches the deposition of an iron coating, or an  $\alpha$ -ferric oxide film on a substrate, which may be glass, and converting the film to a magnetite film or a  $\gamma$ -ferric oxide film through extended exposure to a reducing atmosphere at high temperature. The film is produced through a chemical vapor deposition process which does not need to be sealed off from the outside atmosphere (thus can apparently be at atmospheric pressure). The Examiner acknowledges that the reference fails to disclose that the mixture is formed prior to reacting but states that one skilled in the art would know that forming a mixture prior to reacting ensures saturation amongst the desired materials. The Examiner states that it would have been obvious to utilize a mixture of ferrocene and an oxidant to deposit an iron oxide film with the expectation of obtaining similar results.

The Robinson reference discloses a method and system for fabricating articles made from thermoset resins using an ionic mold release agent. Robinson teaches that float glass having a tin oxide enriched surface can be provided with an ionic release agent externally to the tin oxide surface (paragraph 9). Paragraph 35 notes that a thin metal coating can be applied to the "air side" of a float glass for formation of the mold through, for example, CVD.

It is respectfully submitted that the teaching of Halaby would not lead one skilled in the art to the present invention. The Examiner states that it would have been obvious to one skilled in the art to utilize a mixture of ferrocene and an oxidant to deposit an iron oxide film with the expectation of obtaining similar results (saturation amongst the desired materials). Applicants disagree with this conclusion of the Examiner. Applicants are not aware of any prior art teaching that "forming a mixture prior to reacting ensures saturation amongst the desired materials." Should the Examiner have any information that premixing ferrocene and an oxidant has been shown, applicants hereby request that the Examiner provide such information position in an affidavit, as required by 37 CFR §1.104(d)(2). It is similarly suggested that the Robinson reference does not teach this feature. Nowhere does Robinson specify that these reagents should be premixed for the production of the coating surface of the mold. Further, while paragraph 55 of Robinson suggests different materials, including iron oxide, that can be

deposited as the metal layer, there is no suggestion as to the raw materials used to produce these compounds (i.e. no reference to the claimed ferrocene). The Examiner suggests that the incorporation of Halaby's precursors into Robinson's process would be obvious. It is respectfully submitted that this is not the case.

Halaby is addressed to the production of a magnetic recording media. Robinson is addressed to the production of a mold with a metal oxide surface compatible with ionic release agents. The subject matter of these two references greatly differ, being in two different classifications, and addressing totally different subject matters. It is respectfully submitted that outside of the present disclosure, one skilled in the art would not be motivated to combine the teachings of these two very dissimilar references to propose a combination used in the production of architectural glazings.

Further, as noted previously, applicants submit that the teachings of Halaby are not at all consistent with an on-line float glass process. An on-line float glass process is beneficial in that it proceeds as a continuous process (as opposed to a batch process) at a considerable rate of speed. One of the limiting factors in depositions done in an on-line float glass process is the deposition rate of the reaction. While low deposition rates are acceptable in batch process, they are totally unsuitable for the on-line float glass process. Halaby suggests that the process for producing its desired final products can occur in a period of from 15 minutes to 10 hours (column 3, lines 26-29.) This number is quite reasonable for a batch process, but would be completely incompatible with an on-line process. Thus, the teachings of Halaby are compatible with batch processes, but are incompatible with the on-line float glass process as defined and claimed in claim 1. This also yields further evidence of the incompatibility of combining the Halaby reference with the Robinson reference. The float glass process of Robinson would be incompatible with the batch process of Halaby. Therefore, it is submitted that claim 1 further defines over the applied art of record.

Claim 16 is similar to claim 1, in that it defines a method of utilizing ferrocene in an atmospheric pressure chemical vapor deposition process which occurs in an on-line float glass process to form an iron oxide layer on a substrate. The ferrocene and an oxidant are mixed and delivered to the substrate for use in the chemical vapor

deposition process, and the iron oxide layer formed is primarily  $\text{Fe}_2\text{O}_3$ . An additional coating is applied between the iron oxide coating and the substrate.

Claim 16 distinguishes over the applied art of record for the reasons stated above with regard to claim 1. As with claim 1, the Examiner is requested that should he have any information that premixing ferrocene and an oxidant has been shown, applicants hereby request that the Examiner provide such information position in an affidavit, as required by 37 CFR §1.104(d)(2).

Further, as with claim 1, claim 16 has been amended to indicate that the process occurs in an on-line process. While Robinson does show a float glass process, such a process would be incompatible with Halaby, as noted above.

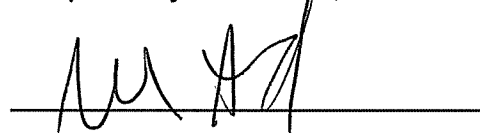
On the basis of the above, it is respectfully submitted that claims 1 and 16 are fully distinguishable over the art of record.

#### Summary

Claims 2-15, 17-20 and 27-29, which depend, directly or indirectly from independent claims 1 or 16, are believed to be allowable based, at least, upon this dependence from what are believed to be allowable base claims. Therefore, all of the claims are believed to be allowable over the applied art of record.

In view of the above, it is submitted that all of the claims are in condition for allowance, and action towards that end is respectfully requested. Should the Examiner wish to modify the application in any way, applicant's attorney suggests a telephone interview in order to expedite the prosecution of the application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark A. Hixon', is written over a horizontal line.

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